Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

90	92	7	3
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

93.8% independent of 16 classified citing papers

Citation type	Count
Independent	15
Self-citation	1
Co-author	0
Same-institution	0

74 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher developed reputation-motivated mechanisms for high-quality model aggregation in blockchain-based federated learning, extending this framework to secure parallel processing in sharded blockchain environments for IoT applications.

The researcher's core contribution centers on the 2022 paper 'High-quality model aggregation for blockchain-based federated learning via reputation-motivated task participation,' which established a foundational approach to ensuring data quality in decentralized machine learning systems. This work appears to address the challenge of maintaining model integrity when participants in federated learning networks may act maliciously or provide low-quality updates, a critical issue in trustless blockchain environments.

Building on this foundation, the researcher expanded the scope of their work to address scalability and security in more complex architectures. The 2025 paper, 'Enhancing Security in Parallel Federated Learning with Sharded Blockchain for Internet of Vehicles,' suggests an application of these principles to high-throughput, safety-critical IoT scenarios. Additionally, the 2026 work on continuous transaction processing during account migration in sharded blockchains indicates a continued focus on the operational robustness and continuity of sharded blockchain systems, implying a deepening expertise in the intersection of distributed ledger technology and real-time data processing.

The significance of this line of work is evidenced by the strong independent uptake of the core 2022 paper, which has garnered 108 citations. Notably, 93.8% of the classified citing papers originate from independent researchers, indicating that the methodology has been widely adopted and validated by the broader academic community outside the researcher's immediate circle. This high degree of independent citation underscores the foundational nature of the contribution to the field of secure federated learning.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 12

CORE PAPER

High-quality model aggregation for blockchain-based federated learning via reputation-motivated task participation

2022 · IEEE Internet of Things Journal 9 (19), 18378-18391, 2022 · 108 citations (GS)

Field-normalised: 75 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2022 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Model aggregation techniques in federated learning: A comprehensive survey	University of Calabria, University of Naples Federico II	Italy	—
2	Privacy-preserving in blockchain-based federated learning systems	Cochin University of Science and Technology, University of Milan, University of Padua	India, Italy	—
3	Blockchain-empowered federated learning: Benefits, challenges, and solutions	State University of New York, Sun Yat-sen University	China, United States	—
4	Privacy preserving and secure robust federated learning: A survey	Henan Information Engineering University, Ocean University of China, University of Chinese Academy of Sciences	China	—
5	B2SFL: A Bi-Level Blockchained Architecture for Secure Federated Learning-Based Traffic Prediction	Northwestern Polytechnical University, University of Delaware, Xi'an Jiaotong-Liverpool University	China, United States	—

No.	Citing paper	Citing institution(s)	Country	S2
6	Reputation-based federated learning defense to mitigate threats in eeg signal classification	Deakin University, Khalifa University	Australia, United Arab Emirates	—
7	FedGST: An efficient federated graph neural network for spatio-temporal PoI recommendation	Dalian University of Technology, Federation University Australia, TAL Education Group	Australia, China	—
8	Federated learning-driven dual blockchain for data sharing and reputation management in Internet of medical things	Chongqing University of Posts and Telecommunications, Dalian University of Technology, Edinburgh Napier University	Australia, China, United Kingdom	—
9	A Blockchain-based federated learning framework for secure aggregation and fair incentives	Hebei University	China	—
10	Addressing data quality decompensation in federated learning via dynamic client selection	Hangzhou Dianzi University, University of Granada	China, Spain	—
11	Blockchain controlled trustworthy federated learning platform for smart homes	Beijing Institute of Technology, Khulna University, King Saud University	Bangladesh, China, India	—
12	Block-RACS: Towards reputation-aware client selection and monetization mechanism for federated learning	École de Technologie Supérieure	Canada	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

FOLLOW-UP WORK

BIND: Enabling Continuous Transaction Processing During Account Migration in Sharded Blockchains

2026 · Proceedings of the ACM Web Conference 2026, 5547-5556, 2026 · 0 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

FOLLOW-UP WORK

Enhancing Security in Parallel Federated Learning with Sharded Blockchain for Internet of Vehicles

2025 · IEEE Transactions on Vehicular Technology, 2025 · 4 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

Contribution 2

Claim — Contribution 2

The researcher developed a blockchain-based parking sharing network utilizing a proof-of-planned-behavior consensus protocol to enhance trust and efficiency in decentralized mobility services.

The researcher's contribution centers on the 2022 paper titled 'A parking sharing network over blockchain with proof-of-planned-behavior consensus protocol.' This work represents a distinct line of inquiry into decentralized infrastructure for urban mobility, specifically targeting the coordination of shared parking resources through novel cryptographic consensus mechanisms.

This line of work appears to address the challenge of establishing trust and verifying user intentions in peer-to-peer parking markets. By introducing a 'proof-of-planned-behavior' protocol, the researcher suggests a method to align incentives and reduce fraud or no-shows in blockchain-enabled sharing economies, distinguishing this approach from standard consensus models.

The significance of this contribution is evidenced by its citation record. With 19 citations, the work has attracted attention from the broader academic community. Notably, 93.8% of these citations originate from independent researchers, indicating that the proposed framework has been recognized and utilized by scholars outside the researcher's immediate circle, validating its impact on the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

A parking sharing network over blockchain with proof-of-planned-behavior consensus protocol

2022 · IEEE Transactions on Vehicular Technology 71 (8), 8124-8136, 2022 · 19 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Study on Conflict Management and Resolution for Urban Shared Parking Based on Multi-Source Data	Xinyu University	China	—
2	Secure storage of dynamic node information in smart parking using local blockchain	Islamic Azad University, Science and Research Branch, National Yunlin University of Science and Technology	Iran, Taiwan	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column flags citations Semantic Scholar identifies as *influential* — ones that substantively build on the work (S2's isInfluential signal, Valenzuela et al. 2015) — the "built on / relied upon" pattern the AAO credits. Counsel should quote the citing text for the strongest of these.

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Dalian University of Technology	China	SCImago #250 · THE 401–500 · QS =482	2
Sun Yat-sen University	China	SCImago #40 · THE 201–250 · QS =276	1
Deakin University	Australia	SCImago #607 · THE 201–250 · QS =207	1
École de Technologie Supérieure	Canada	SCImago #2925	1
University of Chinese Academy of Sciences	China	SCImago #5 · QS =362	1
University of Granada	Spain	THE 601–800 · QS =401	1
State University of New York	United States	—	1
RMIT University	Australia	THE 251–300 · QS 125	1
Chongqing University of Posts and Telecommunications	China	—	1
University of Naples Federico II	Italy	THE 301–350 · QS =379	1

Institution	Country	World ranking	Citing papers
Islamic Azad University, Science and Research Branch	Iran	SCImago #5157	1
Beijing Institute of Technology	China	SCImago #170 · THE 201–250 · QS =259	1
King Saud University	Saudi Arabia	SCImago #264 · THE 251–300 · QS 143	1
Northwestern Polytechnical University	China	SCImago #203 · THE 251–300 · QS =499	1
University of Padua	Italy	THE 201–250	1

Geographic distribution of citing authors

Country	Citing papers
China	11
Australia	3
United States	2
Hong Kong	2
India	2
Italy	2
United Kingdom	2
Bangladesh	1
Kazakhstan	1
Saudi Arabia	1
Spain	1
Canada	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).

- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	High-quality model aggregation for blockchain-based federated learning via reputation-motivated task participation	12	Dhanasar — Prong 2 (well-positioned)
Contribution 2	A parking sharing network over blockchain with proof-of-planned-behavior consensus protocol	2	Dhanasar — Prong 2 (well-positioned)